

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0787-02 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 333 Bldg

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Cover Page

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Report Identification Number: 06I-0787-02
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R33300 J451
Payroll#: 73513

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
21 Feb 2006	J10T79	06I06522	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J10T81	06I06523	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J10T85	06I06524	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J10T84	06I06525	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J10T78	06I06526	NMAM 7300M	G061Q035	MCE
21 Feb 2006	J10T82	06I06527	NMAM 7300M	G061Q035	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: March 03, 2006



Case Narrative Page

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Report Identification Number: 06I-0787-02

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General Set Information: There are 8 samples in set 06I-0784-01, 6 samples in set 06I-0785-01 and 6 samples in set 06I-0787-02 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Two samples were replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g/sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g/L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

Miscellaneous Comments: None.

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J10T79	06I06522	23 Feb 2006	<0.02	U	**		0.00	
J10T81	06I06523	23 Feb 2006	<0.02	U	**		0.00	
J10T85	06I06524	23 Feb 2006	<0.02	U	<0.031	U	641.	
J10T84	06I06525	23 Feb 2006	<0.02	U	<0.021	U	931.	
J10T78	06I06526	23 Feb 2006	<0.02	U	<0.030	U	674.	
J10T82	06I06527	23 Feb 2006	<0.02	U	<0.024	U	817.	
Limit of Detection (LOD)			0.02					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J10T79	06I06522	23 Feb 2006	<2.	U	**		<0.08	U
J10T81	06I06523	23 Feb 2006	<2.	U	**		<0.08	U
J10T85	06I06524	23 Feb 2006	<2.	U	<3.1	U	<0.08	U
J10T84	06I06525	23 Feb 2006	<2.	U	<2.1	U	<0.08	U
J10T78	06I06526	23 Feb 2006	<2.	U	<3.0	U	<0.08	U
J10T82	06I06527	23 Feb 2006	<2.	U	<2.4	U	<0.08	U
Limit of Detection (LOD)			2.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J10T79	06I06522	23 Feb 2006	**	
J10T81	06I06523	23 Feb 2006	**	
J10T85	06I06524	23 Feb 2006	<0.12	U
J10T84	06I06525	23 Feb 2006	<0.086	U
J10T78	06I06526	23 Feb 2006	<0.12	U
J10T82	06I06527	23 Feb 2006	<0.098	U

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$
Limit of Detection (LOD)			
Required Detection Limit (RDL)			

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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Payroll#: 73513

Batch ID: G061Q035

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241741-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241741-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241741-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241741-1	LCS	Beryllium	µg/sample	11.0	NA	10.0	110.	NA
QC-241741-1	LCS	Lead	µg/sample	109.	NA	100.	109.	NA
QC-241741-1	LCS	Cadmium	µg/sample	33.3	NA	30.0	111.	NA
QD-241741-1	LCSD	Beryllium	µg/sample	11.1	11.0	10.0	111.	0.791
QD-241741-1	LCSD	Lead	µg/sample	109.	109.	100.	109.	0.505
QD-241741-1	LCSD	Cadmium	µg/sample	33.1	33.3	30.0	110.	0.602
BL-241741-2	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241741-2	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241741-2	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241741-2	LCS	Beryllium	µg/sample	10.6	NA	10.0	106.	NA
QC-241741-2	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QC-241741-2	LCS	Cadmium	µg/sample	32.3	NA	30.0	108.	NA
QD-241741-2	LCSD	Beryllium	µg/sample	10.9	10.6	10.0	109.	3.43
QD-241741-2	LCSD	Lead	µg/sample	108.	106.	100.	108.	2.50
QD-241741-2	LCSD	Cadmium	µg/sample	32.9	32.3	30.0	110.	1.76

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$$\text{LCS, LCSD Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$$



QC Summary Page

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MS, MSD Percent Rec. = $((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

LCS, LCSD Relative Percent Diff. = $((|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0)) * 100.$

MS, MSD Relative Percent Diff. = $((|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0)) * 100.$

LD Relative Percent Diff. = $((|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0)) * 100$

Net-07870102

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST														
Collector: <u>John Jones</u>		Company Contact: <u>Dustin A. Pitts and Henry W. Ruby</u>		Telephone No. <u>531-1229</u>		Project Coordinator: <u>John H. Kemmer</u>		Data Transmittal						
Payroll # <u>13513</u>		Sampling Location: <u>300 Area</u>		SPECIAL INSTRUCTIONS: <u>All relevant COAs must be provided.</u>		SAF No. <u>RC-001</u>		24 Hour						
Type of Sample: <u>Air & Wipes</u>		Wipe Sample Media: <u>300 Building</u>		ANALYSIS METHOD (SPECIFIC): <u>R3900 J451</u>		Method of Shipment: <u>FED EX</u>								
Shipped To: <u>Data Chem</u>		Wipe Sample Media: <u>Other</u>		NIOSH 7300		Bill of Lading/Air Bill No. <u>8544 9435 4840</u>								
POSSIBLE SAMPLE HAZARD/REMARKS: <u>Be Cd Pb</u>		Matrix: <u>A - AIR</u>		Preservation (i.e., cooling required, etc.):										
Special Handling and/or Storage: <u>NA</u>		Matrix: <u>WI - WIPE</u>												
		Matrix: <u>X - OTHER</u>												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq ft)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Mold	Lead Wipe	Cd Wipe	Cd Airborne			
J10T91	WI	2-21-06	NA	Blank	NA	NA	NA	NA	X	X	4d5			
J10T92			NA	Blank	NA	NA	NA	NA	X	X				
J115X2			100cm ²	100% ML Mgt Mgt	NA	NA	NA	NA	X	X				
J115X3				100% Mgt Mgt Mgt	NA	NA	NA	NA	X	X				
J10T93				MOEX (filter) 2-21-06	NA	NA	NA	NA	X	X	2-21-06			
J10T90				Self-shower room entry door (clean)	NA	NA	NA	NA	X	X				
J10T94				Wash shower stall (clean)	NA	NA	NA	NA	X	X				
J10T91				East Shower stall (clean)	NA	NA	NA	NA	X	X				
J10T95				Wash room sanitary floor MOEX anal	NA	NA	NA	NA	X	X				
J113P1	WI	2-21-06	100cm ²	333-top of light	✓	✓	✓	na	X	X				

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WCH-SH-202 (04/29/2005)

Enter on line below the first Sample Number from Page One:

15071

[illegible]

REVIEWED BY: Kenningworth, Ken DATE: 2/23/06

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST												
Collector: <u>Yvette Jones</u>		Company Contact: <u>Donna A. Pitts and Henry W. Ruby</u>		Telephone No: <u>531-729</u>		Project Coordinator: <u>John H. Krasner</u>		Data Turnaround: <u>24 HOUR</u>				
Payroll #:		Sampling Location: <u>300 Area</u>		SPECIAL INSTRUCTIONS: <u>All relevant COAs must be provided.</u>		SAF No: <u>BC-001</u>						
Type of Sample: <u>Air - 3 wipers</u>		Wipe Sample Media: <u>333 Build</u>		ANALYSIS METHOD (SPECIFIC): <u>R3300 J451</u>		Method of Shipment: <u>FED EX</u>						
Shipped To: <u>DATA Chem</u>		Other: <u>Wipe Sample Media</u>		NIOSH 7300		Bill of Lading/Air Bill No: <u>8544 9435 4840</u>						
Salt Lake City		Other: <u>Wipe Sample Media</u>										
SAMPLE ANALYSIS												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J1130	W	2-21-06	100cm ²	223 condenser, etc. by 2nd door west of 333 (2x 50)								
J1130	W		100cm ²	elect conduit								
J1130	W		100cm ²	lead by 2nd door by 2nd pipe by 2nd door								
J10719	A		NA	Blank								
J10781			NA	Blank								
J10785			641	personal								
J10784			931	personal								
J10778			674	personal								
J10782	A	2-21-06	817	personal								

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WCH-SH-202 (04/29/2005)

Enter on line below the first Sample Number from Page One:

JobTF

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

[illegible]

REVIEWED BY: Kevin C. Williams For Julie Clavett DATE: 2/23/06 10:00
PRINT SIGN NAME

P/CH-SH-202 (04/29/2005)

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